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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,482	10/22/2001	Timothy J. Boyle	023227.P041	3763

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Stephen M. De Klerk
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026

EXAMINER

PATEL, PARESH H

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,482

Applicant(s)

BOYLE ET AL.

Examiner

Paresh Patel

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-- Th MAILING DATE of this communication appears on th cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to because element "50" in fig. 11-12 should read --56--. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 9 is objected to because of the following informalities: "the test handler" should read --the test chuck--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 4, what is unclear and not supported in the disclosure is "the substrates move simultaneously past the image recordation device". Examiner has

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some concern(s): 1) there is only one line scanner 98 disclosed and used to take image of one substrate, therefore how one line scanner 98 will take images of all substrates while they are located at a distance; 2) how the substrates move simultaneously past the image recordation device while only one line scanner 98 (image recordation device) is used for one substrate.

Claims 5-7 are rejected because they depend from the rejected claimed and raises the same concern.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is clear that "circuit is on the substrate". What is not clear is lines 8-9, specifically relation between terminals and contacts with substrate i.e. is terminals contacting contacts of substrate or is terminals on substrate contacting contacts of what?

Claim 9 has same concern as above and is rejected for the same reason as claim 1.

Dependent claims are also rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fujihara et al. (US 5410259).

Regarding claim Fujihara et al. (hereafter Fujihara) discloses: A method of testing a circuit [die or dies of W] on a substrate [W], comprising:

locating the substrate [W] in a transfer apparatus [transfer arm];

moving a surface [41 to transfer arm] of a test chuck [4] into contact with the substrate held by the transfer apparatus;

securing the substrate to the test chuck [using a vacuum suction, lines 45-55 of column 4];

moving the substrate off the transfer apparatus [inherent to 41 because now substrate is in chuck 4];

recording an image of a surface of the substrate [using camera 12];

moving terminals [9a of probe card 9] on the substrate into contact with contacts to electrically connect the circuit through terminals and the contacts to a tester [1

connected to test or tester at lines 54-57 of column 6], no more than a single image of the surface having been recorded [lines 32-35 of column 4 and lines 24-34 of column 5];

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relaying signals through the terminals and the contacts between the electric tester and the circuit [lines 4-5 of column 4 and lines 47-57 of column 6];

disengaging the terminals from the contacts; and removing the substrate from the test chuck.

Regarding claim 8, Fujihara discloses: moving the test chuck so that the substrate moves past an image recordation device [12] to record the image of the surface once only before moving the terminals into contact with the contacts [lines 22-34 of column 5 and 46-57 of column 6].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujihara as applied to claim 1 above, and further in view of DeHaven et al. (US 5701666).

Regarding claims 4, 7 and 9, Fujihara discloses: A method of testing a circuit [die or dies of W] on a single substrate [W] as claimed [also see rejection of claim 1] including moving the test handler (chuck) [4] so that the substrates move past an image recordation device [12] having at least one lens [inherent to 12] focusing on a line across a width [scribe line of wafer], transverse to a direction in which the substrates

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move, of each substrate, to record an image of a surface of each substrate, except for testing a circuit on a plurality of substrates.

DeHaven discloses testing a circuit on a plurality of substrates [14 of fig. 7 and lines 1-26 of column 10]. It would have been obvious to one having ordinary skill in the art to modify method steps of Fujihara to include plurality of substrate as suggested by DeHaven, in order to increase the throughput of a circuit under test i.e. circuit on wafers.

Claims 2-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujihara as applied to claim 1 above, and further in view of Official Notice.

Regarding claims 2-3 and 5-6, Fujihara discloses all the elements including image recording [12] except for the image is recorded before having moved the substrate off the transfer chuck (claims 2 and 5) and the image is recorded while moving the substrate off the transfer chuck (claims 3 and 6). It would have been obvious matter of design choice to record an image before or during the substrate is moving off the transfer chuck, since applicant has not disclosed that the image is recorded while moving the substrate off the transfer chuck or the image is recorded while moving the substrate off the transfer chuck solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with position of camera 12 as disclosed by Fujihara.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Paresh Patel
Sep. 08, 2003


KAMMIE CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800